

**Remarks**

**A. Pending Claims**

Claims 250, 252-261 and 263 are pending in the application. Claims 250 and 263 have been amended. Claims 240-249 and 251 have been cancelled. Claims 250-261 and 263 have been rejected.

**B. Response to Election/Restriction**

Applicant hereby provisionally elects without traverse Invention II, claims 250-261 and 263, drawn to “assessing a viability of human heart tissue by assigning a value”, classified in class 382, subclass 128. Applicant has cancelled claims the Examiner has assigned to Invention I. Applicant reserves the right for consideration of claims to additional species written in dependent form upon allowance of a generic claim. Applicant reserves the right to file one or more divisional applications capturing the subject matter of the non-elected inventions.

**C. The Claim Is Definite Pursuant To 35 U.S.C. § 112 Second Paragraph**

Claim 251 was rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully disagrees.

The Office Action states:

The recitation “wherein assessing viability of human heart tissue comprises determining viability of human heart tissue” is unclear, because it is unclear what feature or element is being further defined by this claim language, so that the claim fails to clearly point out and distinctly claim application’s invention.

Applicant respectfully disagrees with the rejection; however, to expedite prosecution of the present application Applicant has cancelled claim 251.

**D. The Claims Are Not Anticipated By Halmann Pursuant To 35 U.S.C. § 102(b)**

Claims 250-261, and 263 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,151,856 to Halmann et al. ("Halmann"). Applicant respectfully disagrees.

The standard for "anticipation" is one of fairly strict identity. To anticipate a claim of a patent, a single prior source must contain all the claimed essential elements. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 231 U.S.P.Q.81, 91 (Fed. Cir. 1986); In re Donahue, 766 F.2d 531,226 U.S.P.Q. 619,621 (Fed. Cir. 1985).

The Office Action states:

As to claim 250, Halmann et al teaches a method of assessing a viability of human heart tissue, comprising: providing one or more images of heart tissue from a human heart to a computer system (generating a plurality of two-dimensional sections of a mammalian heart, column 3, lines 28-29); dividing at least one of the images into a plurality of sections (subjecting the resulting sections to a segmental or helical pattern analysis, column 3, lines 30-35); assigning a value to at least one of the sections, wherein the value is a function of a feature of the section (regional function is color coded, column 2, lines 39-51); and using the value of at least one of the sections to assess viability of human heart tissue in or proximate to at least one of the sections with an assigned value (constructing the three-dimensional, simulation, and animation of a human heart where the model can be used to determine the effect with simulated and real effects on mechanical behavior. The effects of physical and pharmaceutical intervention can also be simulated and real effects on mechanical behavior. The effects of physical and pharmaceutical intervention can also be simulated and real effects on mechanical behavior. The effects of physical and pharmaceutical intervention can also be simulated, for example the colored heart is depicted with colored regions representing stress area, infarcts, wall thickenings, or other myocardial pathologies where the analysis (asses viability) can include suggested diagnosis and intervention and the animation consists of a plurality of 3D images; (column 9, lines 44-46 and figure 1).

Applicant respectfully submits that the cited art does not appear to teach or suggest the combination of features in claims 250-261 and 263.

Amended claim 250 describes a combination of features including, but not limited to, the feature of: “creating endocardial and epicardial left ventricle wall boundaries; automatically segmenting at least a portion of left ventricle wall endocardial boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points; automatically segmenting at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points; and automatically using endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time.” Support for amendments to the claim may be found in the specification at least on page 29, line 9 through page 30, line 14.

Amended claim 263 describes a combination of features including, but not limited to, the feature of: “create endocardial and epicardial left ventricle wall boundaries; automatically segment at least a portion of left ventricle wall endocardial boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points; automatically segment at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points; automatically use endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time; and assess viability of human heart tissue by using the computer system to assess a contrast between at least two sections in the model.” Support for amendments to the claim may be found in the specification at least on page 29, line 9 through page 30, line 14.

Halmann does not teach the combination of features in the claims, including but not limited to “creating endocardial and epicardial left ventricle wall boundaries; automatically segmenting at least a portion of left ventricle wall endocardial boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points;

automatically segmenting at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points; and automatically using endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time,” or “create endocardial and epicardial left ventricle wall boundaries; automatically segment at least a portion of left ventricle wall endocardial boundaries of at least two of the provided images of heart tissue into a selected number of endocardial left ventricle wall points; automatically segment at least a portion of left ventricle wall epicardial boundaries of at least two of the provided images of heart tissue into a selected number of epicardial left ventricle wall points; automatically use endocardial left ventricle wall points and epicardial left ventricle wall points to create a model of at least a portion of the left ventricle wall over one or more periods of time; and assess viability of human heart tissue by using the computer system to assess a contrast between at least two sections in the model.”

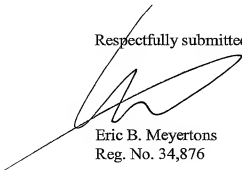
Applicant submits that Halmann does not appear to teach or suggest the combination of features in claims 250 and 263. Applicant further submits that at least some of the claims dependent on independent claims 250 and 263, are separately patentable over Halmann.

#### **E. Conclusion**

Applicant submits that the claims are in condition for allowance. Favorable reconsideration is respectfully requested.

Applicant respectfully requests a three-month extension of time. A fee authorization form has been submitted to cover fees associated with a three-month extension of time. If any further extension of time is required, Applicant hereby requests the appropriate extension of time. If any further fees are required, or have been overpaid, please appropriately charge, or credit, those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5838-03103/EBM.

Respectfully submitted,



Eric B. Meyertons  
Reg. No. 34,876

Attorney for Applicant

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.  
P.O. Box 398  
AUSTIN, TX 78767-0398  
(512) 853-8800 (voice)  
(512) 853-8801 (facsimile)

Date: Sept. 4, 2001